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Attorney Docket No. S63.2N-5605-US04

Amendments To The Claims:

Claims 1-56. (Canceled)

Claim 57. (Previously presented) A tubular, flexible, expandable stent having a proximal end and a distal end and comprising:

a plurality of cylindrical shaped segments aligned on a common longitudinal axis to define a generally tubular stent body, each segment having a proximal end and a distal end, each segment being defined by an undulating pattern of interconnected struts to define the periphery of the stent body, circumferentially adjacent struts interconnected at only one end of the struts; and

a plurality of interconnecting elements, each interconnecting element extending from an interconnected end of adjacent struts on one segment to a circumferentially offset interconnected end of adjacent struts on an adjacent segment, each interconnecting element having a proximal end and a distal end, the distal end offset in a circumferential direction and in a longitudinal direction from the proximal end;

the stent including cylindrical shaped segments which have interconnecting elements extending from the distal end of the segment and from the proximal end of the segment, each interconnecting element which extends from the distal end of the segment connected to an interconnecting element which extends from the proximal end of the segment via three struts of the segment;

the stent further including end segments and intermediate segments, each of the struts of the end segments being longer than the struts of the intermediate segments of the stent;

whereby, upon expansion of the stent, struts of adjacent segments are displaced relative to each other about the periphery of the stent body to accommodate longitudinal flexing of the stent within the segments and without interference between adjacent segments.

Claims 58-66. (Canceled)

Claim 67. (Previously presented) A substantially cylindrically shaped stent having a longitudinal axis,

the stent comprising a plurality of closed undulating segments, the undulating segments extending circumferentially about the stent,

each undulating segment having a first end and a second end, the first end

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characterized by a plurality of end portions separated by gaps, the second end characterized by a plurality of end portions separated by gaps, the gaps on the first end circumferentially offset from the gaps on the second end and the end portions on the first end circumferentially offset from the end portions on the second end,

one of the undulating segments located at a first end of the stent having a plurality of interconnecting elements extending from one end of the segment only to a segment adjacent thereto and one of the undulating segments located at a second end of the stent having a plurality of interconnecting elements extending from one end of the undulating segment only to an undulating segment adjacent thereto,

there being a plurality of intermediate undulating segments which are located between the segments at the first and second ends of the stent, each intermediate undulating segment having interconnecting elements extending from the first and second ends of the intermediate undulating segments, the interconnecting elements extending from less than all of the end portions at both ends of the intermediate undulating segments,

each interconnecting element extending from an end portion of an undulating segment to an end portion of an undulating segment adjacent thereto,

each interconnecting element having a proximal end and a distal end, the distal end being offset in both a circumferential direction and a longitudinal direction from the proximal end.

Claims 68-78. (Canceled)

Claim 79. (Previously presented) The stent of claim 84 wherein each interconnecting element is substantially straight.

Claim 80. (Previously presented) The stent of claim 84 wherein the stent further includes end segments and intermediate segments and the end segments of the stent include longer struts than the intermediate segments of the stent.

Claims 81-82. (Canceled)

Claim 83. (Previously presented) The stent of claim 84 comprising interconnecting elements which are circumferentially adjacent one another and are separated from one another by six struts on each of the cylindrical shaped segments from which they extend.

Claim 84. (Previously presented) A tubular, flexible, expandable stent having a proximal end

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and a distal end and a sidewall with a plurality of openings therethrough, the stent comprising:

a plurality of cylindrical shaped segments aligned on a common longitudinal axis to define a generally tubular stent body, each segment being defined by an undulating pattern of interconnected struts to define the periphery of the stent body, circumferentially adjacent struts interconnected at only one end of the struts; and

a plurality of interconnecting elements, each interconnecting element extending from an interconnected end of circumferentially adjacent struts on one segment to an interconnected end of circumferentially adjacent struts on an adjacent segment, each interconnecting element having a proximal end and a distal end, the distal end circumferentially and longitudinally offset from the proximal end;

the stent including cylindrical shaped segments having at least three struts extending between each interconnecting element extending distally from the cylindrical shaped segment and the nearest interconnecting element extending proximally from the cylindrical shaped segment,

wherein each of the openings in the sidewall is bounded by two interconnecting elements and portions of two different adjacent cylindrical shaped segments.

Claims 85-88. (Canceled)

Claim 89. (Previously presented) A tubular, flexible, expandable stent, comprising:

a plurality of cylindrical shaped segments aligned on a common longitudinal axis, each segment having a proximal end and a distal end and being defined by a member formed in a closed undulating pattern of interconnected struts, circumferentially adjacent struts interconnected at only one end of the struts at an interconnected end portion and

a plurality of interconnecting elements each extending from one segment to an adjacent segment, some of the segments having interconnecting elements extending from the distal end of the segment and from the proximal end of the segment, the interconnecting elements which extend from the distal end of the segment connected to the interconnecting elements which extend from the proximal end of the segment via three struts of the segment,

each interconnecting element extending from one interconnected end portion of one segment to another interconnected end portion of another adjacent segment but not to an oppositely positioned end portion of an adjacent segment.

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Claim 90. (Previously presented) A substantially cylindrically shaped stent having a longitudinal axis,

the stent comprising a plurality of closed undulating segments, the undulating segments extending circumferentially about the stent,

each undulating segment having a first end and a second end, the first end characterized by a plurality of end portions separated by gaps, the second end characterized by a plurality of end portions separated by gaps, the gaps on the first end circumferentially offset from the gaps on the second end and the end portions on the first end circumferentially offset from the end portions on the second end,

an undulating segment at a first end of the stent having a plurality of interconnecting elements extending from one end of the segment only to a segment adjacent thereto and an undulating segment at a second end of the stent having a plurality of interconnecting elements extending from one end of the undulating segment only to an undulating segment adjacent thereto,

a plurality of undulating segments which are located between the segments at the first and second ends of the stent having interconnecting elements extending from less than all of the end portions at both ends of the segments,

each interconnecting element having a proximal end extending from an end portion of one undulating segment and a distal end extending from an end portion of an undulating segment adjacent to said one undulating segment,

each interconnecting element having a proximal end and a distal end, the distal end circumferentially and longitudinally offset from the proximal end, the interconnecting elements oriented diagonally to the longitudinal axis of the stent.

Claim 91. (Previously presented) The stent of claim 90 wherein the stent is made of metal.

Claim 92. (Previously presented) The stent of claim 91 wherein the metal is a shape memory alloy.

Claim 93. (Previously presented) The stent of claim 90 wherein the stent forms a thin-walled tubular member.

Claim 94. (Previously presented) The stent of claim 90 formed as a self-expanding configuration.

Claim 95. (Previously presented) The stent of claim 90 formed as a mechanically expandable configuration.

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Claim 96. (Previously presented) The stent of claim 90 wherein the interconnecting elements between adjacent segments are of the same length.

Claim 97. (Canceled)

Claim 98. (Previously presented) The stent of claim 84 wherein the stent is expandable from an unexpanded state to an expanded state, in the unexpanded state at least a portion of the interconnected struts being parallel to one another.

Claim 99. (Previously presented) The stent of claim 84 constructed and arranged to be self-expanding.

Claim 100. (Previously presented) The stent of claim 84 constructed and arranged to be balloon expandable.

Claim 101. (Previously presented) The stent of claim 84 wherein the stent is constructed from a shape memory material.

Claim 102. (Previously presented) The stent of claim 84 wherein the end portions of adjacent cylindrical shaped segments are not longitudinally opposite one another.

Claim 103. (Cancelled)